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## Remarks

The Office Action dated November 29, 2006 indicated that claims 1-6 and 9 stand rejected under 35 U.S.C. § 103(a) over Chari et al. (U.S. 4,428,046) in view of Dean (U.S. 4,641,375); and claim 7-8 are indicated as potentially allowable, if rewritten in independent form to include limitations of any intervening claims.

Applicant appreciates the indication of allowability for claims 7 and 8.

Applicant traverses the Section 103(a) rejections of claims 1-6 and 9, because the Office Action fails to provide correspondence for each and every claimed limitation. The Office Action fails to provide adequate evidence of motivation to suggest that the skilled artisan would modify the Chari reference with the teachings from the Dean reference because the asserted modification of the Chari in view of the Dean would frustrate the purpose of the Chari reference and because the references teach away from the attempted modifications. According to the M.P.E.P. § 2143.01 as further explained below, because the asserted modification would frustrate the purpose of the main reference, the rejection is improper.

The Examiner's asserted definition for a pilot signal is "a signal transmitted over a communication system for control or reference purposes" (see, e.g., the instant Office Action, page 3, lines 2-3). Applicant appreciates the Examiner's clarification of the rationale behind the asserted definition, but respectfully submits (without expressing an opinion as to the validity of the asserted definition) that this rationale is moot in view of the claimed limitations. More specifically, the claimed limitations are explicitly directed to a pilot signal of varying frequency. The Examiner admits that the Chari reference does not teach such a varying frequency component and attempts to address this deficiency using the teachings of the Dean reference.

Applicant appreciates the Examiner's clarification regarding the asserted motivation to combine the Chari and Dean references; however, in attempting combine the references, it appears that the Examiner has ignored important functional details. In doing so, the Office Action fails to address Applicant's previous arguments that such a combination would be inoperable for its state purpose (provided in Applicant's response dated August 16, 2006) as required by MPEP 707.7(f). The Chari reference teaches a star coupler